



Final

**Material Separation Plan 3
For the Diversion of Mercury
July 1, 2004 – December 31, 2006**

**SEMASS Resource Recovery Facility –
Rochester, Massachusetts**

November 2004

Prepared by:

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Below is the copy of an email communication between Anthony Dell'Anno, SEMASS Environmental Manager and Nancy Seidman, DEP Consumer Programs Division Director on November 5, 2004 explaining that SEMASS has terminated the position of MSP coordinator and indicates who will be carrying out that work.

Dear Nancy:

Nancy, per our discussion on Oct 27, 2004, I wanted to get back to you regarding the MSP coordinator position for SEMASS.

Sidi Mateo will be leaving American Ref-Fuel Company at the end of December 2004 and we are transitioning her responsibilities to other American Ref-Fuel Company Employees. Specifically, Daniel Peters PE will be designated as the MSP coordinator for SEMASS for the near term, but in carrying out the MSP responsibilities, he will receive support from other personnel that are currently employed by American Ref-Fuel Company (Matthew Sears, Susan King and Anthony Dell'Anno). Over the past year, Dan has been supporting Sidi Mateo on MSP so this is not new to him. In the short-term you may continue to contact Sidi with any question on the MSP, however, we would prefer that you also phone Dan Peters at (508) 295-2860. American Ref-Fuel Company will give the same level of support to the MSP program as it has in the past.

Daniel Peters is designated as the Material Separation Plan (MSP) Coordinator for the near term and, if necessary, he will receive additional support from other American Ref-Fuel Company personnel to ensure the program receives the same amount of support (if not more) as it received in the past.

Please call me if you wish to discuss further at 508 291 4420.

Thank you
Anthony

Material Separation Plan 3,
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SEMASS Resource Recovery Facility – Rochester, Massachusetts

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I. BACKGROUND

In accordance with the requirements of 310 CMR 7.08, and on behalf of the SEMASS Partnership, attached is the third installment of the Material Separation Plan (MSP3) for the diversion of mercury and mercury-containing products. MSP3 has been prepared to address the solid waste regulations noted above, guidance and technical comments from the Massachusetts Department of Environmental Protection (Department), and input from Plan stakeholders.

The SEMASS Partnership (SEMASS) owns and operates the SEMASS Resource Recovery Facility (SEMASS RRF) in Rochester, Massachusetts. American Ref-Fuel Company of SEMASS L.P. (Ref-Fuel) is the managing general partner of SEMASS. SEMASS provides solid waste processing and disposal services for more than sixty long-term contracted, residential community customers (SEMASS Communities) located primarily in southeastern Massachusetts, Cape Cod, and the Boston vicinity. The SEMASS RRF receives and processes approximately 1,000,000 tons of solid waste annually. Based on the latest data compiled by the Commonwealth (EOEA 2001 Progress Report on the *Beyond 2000 Solid Waste Master Plan*, December 2003), this represents approximately one-seventh of all municipal solid waste generated in the Commonwealth. Electricity created from the processing of solid waste at the SEMASS RRF is sufficient to power more than 75,000 households. Between 45,000 and 50,000 tons of recyclable ferrous and non-ferrous metals are typically reclaimed each year from waste processing at the SEMASS RRF.

The goals of the Material Separation Plan are fourfold: 1) identify products in the solid waste stream that contain significant quantities of mercury, 2) provide the instructional and outreach support necessary to educate the SEMASS communities and general public about the reasons to reduce mercury in the waste stream and how to recover and recycle mercury and mercury-containing products before disposal as solid waste, 3) aid the SEMASS customer base in implementing mercury removal and recycling programs, while supporting or supplementing existing programs, and 4) effectively manage activities related to these goals to maximize the value of every dollar invested in the program.

It remains Ref-Fuel's firm belief that the most efficient method to prevent the disposal of mercury in solid wastes is for the manufacturers of products containing this compound to modify or substitute other, less toxic compounds that can achieve a comparable function. However, until voluntary efforts by these manufacturers occur and/or further federal and state regulatory requirements are promulgated to achieve this objective, Ref-Fuel remains dedicated to our continued commitment to the Material Separation Program to reduce the amount of mercury disposed in the solid waste stream.

Preparation of this Plan has been based on input received from the SEMASS communities via the Council of SEMASS Communities (COSC) meetings, stakeholders, the local

community Recycling Coordinators, the Department, and/or direct suggestions from community individuals.

II. SCOPE OF PLAN ACTIVITIES

The scope of Material Separation Plan 3 (MSP3) activities is broken down into four primary tasks as described below. MSP3 incorporates all of the activities included in the former Plan (MSP2) plus new targeted products (i.e. mercury switches), community and business sectors (Town Building Inspectors, HVAC/builder contractors & suppliers, boatyards & marinas) and methods (i.e. donut/coffee shop coupons) that were not emphasized in earlier versions of the Plan. While activities from MSP2 will still occur and be carried out in this new plan (i.e. Waste Sheds, blood pressure cuffs), less emphasis will likely be applied to them. MSP program activities need to be adapted to newer and more productive areas for mercury and mercury-containing products as earlier, targeted sources are exhausted to maximize mercury removal rates and increase participation. This in turn translates to the largest degree of mercury separation from the potential solid waste stream. Ref-Fuel will continue to adapt and modify Plan activities in search of this maximum level of efficiency.

With the increased variety of Plan activities, participating communities will now have a wider choice of options to implement mercury recovery and recycling in a manner that best suits their specific needs. SEMASS continues to find that providing the participating communities with the flexibility to select the activities that pertain to their needs has been a key ingredient for success of the Plan's continued implementation. Funds may be shifted throughout the duration of this Plan, based upon the participation of the various activities.

Each Plan activity describes the actions that would occur, including education value, the targeted sector or population, an explanation of where the activity will take place, and an estimated timeline for implementation. The scope of Plan activities for MSP3 are detailed as follows:

Task 1.0 - IWSA Education and Outreach

As during earlier MSP plans, SEMASS will partner with other waste-to-energy companies operating in the Commonwealth to jointly sponsoring activities conducted by the Integrated Waste Services Association (IWSA).

Objectives. IWSA's Education Plan for 2001 produced a media campaign "Keep Mercury from Rising" including newspaper and radio advertisements, posters, and a brochure for use by the facilities. The activities for MSP3 will take advantage of the prior Plan's work by

continuing to use targeted advertising to reach communities serviced by waste-to-energy facilities. The objectives for MSP3 include the following:

- Continue to raise awareness about mercury-containing products in the home and workplace and to properly handle and dispose of these products;
- Provide information and promotion of local recycling events;
- Continue to build integrated communications programs that leverage opportunities for incremental, free media, and work synergistically with the efforts of other waste-to-energy facilities.

Approach. IWSA will continue the targeted placement advertising to reach communities serviced by the facilities, as well as the implementation of print advertisements and radio live-read script to run as public service announcements. The facilities, through IWSA, also propose to expand web capabilities by providing additional tools for residents in target communities to continue to participate in recycling of mercury-containing products. IWSA also will reach out to the media to generate media coverage of the public education campaign.

IWSA's activities are presented as subtask efforts below. SEMASS may choose to implement these educational and outreach activities in greater or lesser scope than described below in order to develop a program that fits the needs of our Plan's communities and customers.

1.1 Advertising. Radio and print advertising will be used. Radio is a targeted medium that provides cost-efficient mass communication and repeated message delivery. Radio programs can also provide an opportunity to interact with local communities. Print advertising can be equally effective. Residents look to community newspapers for information on local activities and events. Additionally, these publications are a cost-efficient way to reach the targeted audience.

Activity. Radio: IWSA proposes to implement a two-week radio buy in May of each year. The buy will be scheduled to encourage mercury recycling activities and added-value opportunities (e.g., sponsorship of special broadcasts, contests, and free spots stations provide). These opportunities will be considered in development and negotiation of the buy. **Print:** Advertising will include a limited print effort including regional sections of the Boston Globe that reach the target audiences. Individual facilities will supplement the IWSA buy with advertising in local newspapers.

Timeline: IWSA will conduct a two-week radio buy in May, 2005 and 2006 with print advertising in the Boston Globe and its supplements to support these radio buys.

1.2 Public Service Advertisement (PSA) Marketing and Media Outreach. Strong interest in environmental issues among Massachusetts' residents makes the Campaign and the efforts of IWSA a potentially interesting story for journalists. The Mercury Campaign's advertising message and presentation in both print and radio provides a strong opportunity to gain free exposure for the ads on radio stations and in newspapers. This is evidenced by the unsolicited request that was received from a radio station in the Boston area for a live-read version of the radio spot for use as a PSA. IWSA and/or its' subcontracted consultant will market the PSA to gain free media.

Activity. Conduct outreach to Massachusetts media to generate coverage of the Mercury Recycling Campaign and the positive work of WTE providers including visits to editorial boards and news radio talk shows. Identify local print and radio media and promote the use of the Mercury Campaign advertisements as PSAs.

Timeline. This activity will be ongoing throughout the Plan period.

1.3 Web-based Tools. This internet-based community information resource is available at www.keepmercuryfromrising.org. The videos produced in 2003 will be included in the site. A number of sources are searched periodically for important information that may be included in the website. IWSA will continue to update its site as more information becomes available.

Activity. IWSA will continue to build upon web-based capabilities for dissemination of information on local recycling events.

Timeline. This activity is expected to begin during July, 2004 and be ongoing throughout the Plan period, thereafter.

1.4 Print Materials. A brochure and poster layout has been developed and is being used by IWSA companies and public officials responsible for disseminating information about mercury recycling. IWSA does not propose to alter the materials, but will make such materials available as needed.

Activity. IWSA will support facilities as needed with additional print materials.

Timeline. This activity is expected to be ongoing throughout the Plan period.

1.5 Video. Individual facilities will continue to disseminate the video completed in 2003 to local broadcast and cable outlets, as well as schools, libraries and other public offices.

Activity. IWSA will distribute copies of the video as requested by facilities, public groups and the media.

Timeline. This activity is expected to be ongoing throughout the Plan period.

1.6 Evaluation Tool. The effectiveness of all activities will be measured by a research survey. The 2005 and 2006 surveys will be completed in the first half of the year shortly after placement of paid media and compared with earlier polls to better define the audience and the effectiveness of the message and media. The polls will be designed to measure positive changes in public attitudes and behaviors, as well as the receptiveness of the message.

Activity. IWSA will sponsor two surveys. The survey questionnaire is expected to be a time duration between six and eight minutes in length, and the study will consist of 400-500 completes, providing a + / - 4.39% error rate at a 95% confidence level. The survey will be executed via random digit dialing from electronically generated phone lists. A series of screen questions would produce the necessary targeted universe of respondents.

Timeline. The surveys are expected to go into the field in May 2005 and 2006, shortly after completion of publication of print and airing of radio media.

Task 2.0 - Local Education and Outreach

In addition to the campaign conducted by IWSA, SEMASS will continue to implement a program that supplements education and outreach with additional mailings and messages designed to meet the needs of the SEMASS communities and customers.

Objectives. A key objective during MSP3 will be to continue to explain that certain products contain mercury and have hazards as well as the opportunity for reclamation of these products to communities and local businesses within the Plan geographic area. The goal will be to expand knowledge of the Plan activities to these targeted sectors while maintaining the momentum of education and outreach accomplished with SEMASS customers during MSP1 and MSP2.

Approach. New efforts will be devised to reach additional customers and local businesses including some of the following:

- A program of direct calling to targeted businesses

- Working with local Chambers of Commerce
- Working with local Building Inspectors and organizations such as Boston Area Builders' Association (BAGB)
- The MSP Coordinator will continue to give presentations at the Council of SEMASS Community (COSC) meetings, to explain the opportunities of the MSP program and to encourage participation
- SEMASS will also send a direct mail postcard to each of the contacts within SEMASS' geographic area, making them aware of the activities available with the MSP 3, as well directing them to web-sites that they may download a copy of the entire Plan

Efforts for local education and outreach will involve similar activities that were conducted during MSP1 and MSP2. These include: financial support of mailings/flyers brochures initiated by those communities/organizations, and in-person visits by the MSP Coordinator.

2.1 Community and School Outreach. SEMASS will conduct activities to support the communities, other municipal recycling organizations, and schools in the goals of education, outreach, and removal of mercury-containing products. The primary purpose of this subtask will be to assist each community in their preferred methods of information dispersal. In addition, the MSP Coordinator will offer guidance along with the proper tools (e.g., training sessions, supplies) and advertising to conduct outreach on the Plan in an attempt to ensure successful mercury-reclamation programs.

Activity. SEMASS will provide supplemental funding for appropriate newsletter and/or pamphlet distributions. In the past, communities have requested funding for direct mail pieces that have been supplements to notices for Household Hazardous Waste (HHW) events. SEMASS will continue this activity during MSP3. Residential participation at HHW events has been shown to be a successful tool in diverting mercury from the waste stream as well as other potentially harmful items and products. The funding of these direct mail distributions has been an important component towards the success of the HHW events.

SEMASS will assist in the development and funding of customized, direct mail pieces and/or posters that address diversion of mercury-containing products in support of community and school education and outreach. In addition, SEMASS will assist communities or school organizations with requests for creation and/or funding of other local print advertising in support of education and outreach activities. These activities will be evaluated on a case-by-case basis with regards to the applicability to the diversion of mercury or mercury-containing products from the waste stream as well as the anticipated degree of enhancement for a particular targeted activity. These supplemental advertising efforts will be conducted, to the extent practical, to complement efforts conducted by the

IWSA under Task 1.0. For example, SEMASS will emphasize the use of IWSA's website www.keepmercuryfromrising.org on direct mail pamphlets, advertising, and other potential media.

SEMASS will continue to work with the Community Service Learning (CSL) and Educational Leadership for Civic Responsibility (ELCR) groups to award grants and other funding so that mercury awareness and education are incorporated into their school curricula. The MSP Coordinator will continue to conduct mercury awareness presentations at schools and other civic groups. When appropriate, tours of the SEMASS RRF will be conducted on behalf of these groups to educate the public on the combined roles of the Waste-to-Energy (WTE) facilities and the MSP program in diverting mercury-containing products from the solid waste stream. Should participation decline, SEMASS will at that time do additional outreach, such as phone calls, letters and in-person visits, to generate interest in the activity.

SEMASS will include outreach to municipal water and sewer departments within the SEMASS communities. SEMASS will query municipalities (either through a direct mail solicitation and/or phone calls) regarding water flow meters in storage or in use with mercury-containing switches. If these municipalities wish to take advantage of the MSP program and SEMASS determines that it's an effective use of MSP funds, then SEMASS will encourage the reclamation of these units at planned MSP activities in their municipality (such as Household Hazardous Waste events) or placement in their Universal Waste Sheds.

With respect to the water flow meters, it will be the responsibility of the municipal water/sewer authority to collect the stored units they wish to reclaim and to remove any units in operation that they wish to reclaim as well. In addition, due to the size, complexity and cost of flow meters, SEMASS will not be furnishing mercury-free replacement units.

The MSP Coordinator will attend all meetings with the Council of SEMASS Communities (COSC) to discuss the results of the program-to-date, encourage feedback and comments, and, if necessary, to modify the program to better customize it to community needs and requests.

SEMASS will attend and/or sponsor booths at local environmental conferences and/or organizational meetings for the purpose of further extending the efforts by IWSA detailed in Task 1.0 as well as the program opportunities offered by SEMASS. A list of some of the potential local conferences or organizational meetings include the following:

- Northeast Resource Recovery Association
- Massachusetts Municipal Association
- Solid Waste Association of North America: National conferences as well as Regional Chapter Meetings
- Waste Expo

- New England Environmental Expo
- Community Service Learning Symposium

Timeline. Efforts for this activity will be ongoing throughout the period of the Plan.

2.2 Business Outreach. The primary purpose of this subtask will be to conduct several means of outreach to local businesses, to notify these facilities of the Plan, identify those facilities with significant potential for mercury and/or mercury-containing products, and encourage these companies to join in implementing some of the mercury reclamation tasks detailed in Task 3.0.

Activity. SEMASS will conduct the following various outreach aspects

- Evaluate information from various Chambers-of-Commerce or other business sources and tabulate a list of potential businesses/companies who may use mercury-containing products
- Initiate a direct phone call program to confirm or deny if those businesses use mercury-containing products and, if so, to solicit interest in the program by explaining the opportunities available to them for mercury recycling through the MSP program
- Follow-up successful phone contacts with written literature documenting the activities that are available to business, and further phone calls to encourage participation
- SEMASS will contact the utility companies operating within the SEMASS service area and seek to coordinate outreach efforts for digital thermostat promotion and mercury thermostat replacement.
- For interested businesses with acceptable potential for mercury reclamation, schedule mercury collection activities by means of: a) participation in community HHW events, Waste Sheds, or other exchange events, b) mail-in reclamation (described further below), or c) direct pick-up “milk runs”
- In addition to SEMASS’ own direct efforts, SEMASS will also be using an independent contractor (Pozitive Environmental Solutions, Inc. or PESI) to assist in making contacts and setting up programs. PESI will identify target business segments and potential businesses that may utilize mercury or mercury-containing products. Contact of businesses may be through multiple means including: 1) contacting municipal chambers of commerce, 2) internet searches, and 3) direct telephone surveys.

Some businesses may elect to utilize a mail-in reclamation process for their undamaged, mercury-containing products. SEMASS plans to offer these companies pre-paid “Business Paks” that will allow for the safe reclamation of fluorescent bulbs, U-tubes and/or HIDs to a licensed third party reclamation vendor (refer to Section IV of this Plan). These “Business

Paks” will include pre-paid return postage, via FedEx and/or UPS; as well as the reclamation costs of the bulbs. As an additional incentive to participate, SEMASS will also offer single day collection events, in which a qualified vendor would set up a truck at a predetermined location for the collection of mercury-containing devices.

Timeline. Efforts for this activity will be ongoing throughout the period of the Plan.

2.3 Mercury Handling and Awareness Training. The primary purpose of this subtask is to ensure that the long-term SEMASS communities have available to them proper training by a third party vendor. This training has been a key component to ensure that those people that come into contact with the mercury-containing products understand the importance of proper handling, labeling and storage of the devices, and potential accidental spillage.

Activity. SEMASS will continue to make training sessions available to communities by utilizing SEMASS’ in-house mailing list for a direct mailer to advise communities when and where the sessions shall be occurring. SEMASS will also consider other groups including school educators and school support staff (such as janitors). Training sessions will be scheduled, organized and attended by the MSP Coordinator and led by outside contractors familiar with mercury handling and awareness (refer to Section IV of this Plan). Up to six (6) training sessions will be conducted as part of MSP3 activities and held at mutually agreeable locations within the Plan geographic area.

Timeline. Efforts for this activity will be ongoing throughout the period of the Plan.

Task 3.0 - Mercury Reduction / Recycling Programs

Task 3.0 involves direct activities that result in identification, location, separation, handling, transportation and recycling of elemental mercury or mercury-containing products. Subtasks are targeted to particular areas where further sources of mercury or mercury-containing products may be found.

In accordance with the letter issued by the Department to SEMASS dated February 18, 2004, field measurement and reporting of elemental sources of mercury will be conducted by obtaining direct weights of the quantity of mercury itself, when at all possible. In order to minimize the exposure risk to reclamation personnel and others, mercury-containing containers and products will not be opened. Tare weights of the containers or products holding the elemental mercury will be estimated to the degree practical.

Unless otherwise noted, SEMASS will utilize the standard conversion factors for mercury-containing products developed by the Northeast Waste Management Officials’ Association (NEWMOA) and detailed in Table 1, below. For consistency, these factors will be utilized

during the entire January – December 2004 annual reporting period (the six-month period of January – June 2004 falls under MSP2) as well as during the MSP3 period.

Please note that NEWMOA has not developed standard conversion factors for the some of the mercury-containing products that SEMASS has encountered in the MSP program (for example, electronic mercury switches, compact lights, etc.). As noted in Table 1, SEMASS will assume conversion factors utilized during MSP2 for these items.

TABLE 1. CONVERSION FACTORS FOR MERCURY-CONTAINING PRODUCTS

Name of Mercury-Containing Product:	Quantity of Mercury: ^(a)
Fluorescent Lamps (straight)	0.005 grams (5 mg) per Linear Foot of Lamp
Glass Fever Thermometers	1 gram per unit
Laboratory Thermometers	3 grams per unit
Blood Pressure Cuffs	110 grams per unit
Barometers	500 grams per unit
Sling Psychrometers	6 grams per unit
Thermostats (Residential & Commercial)	4.5 grams per unit
Mercury Switches	8 grams per unit ⁽²⁾
Float Switches	4.5 grams per unit ⁽²⁾
Mercury Button Cell Batteries	0.009 grams (9 mg) per unit
U-Tube Fluorescent Lamps	0.0175 grams (17.5 mg) per unit ^(b)
Circular Bulb Fluorescent Lamps	0.0175 grams (17.5 mg) per unit ^(b)
Compact Lights	0.0175 grams (17.5 mg) per unit ^(b)
HID Lamps	0.035 grams (35 mg) per unit ^(b)

Notes:

- a. Source of factors: NEWMOA factors contained in MADEP letter to SEMASS dated 2/18/04.
- b. Assumed factors utilized during MSP2 by SEMASS.

3.1 Medical & Dental Facilities. The reclamation of mercury from medical blood pressure cuffs will continue to be pursued in MSP3 activities where such sources become evident. The focus, however, of this activity will be redirected to additional potential sources of mercury from dental facilities where Plan efforts have not yet been focused. The primary source of mercury to be targeted is elemental mercury in the form of amalgams from replaced dental fillings or other dental sources.

Activity Scope. Funds are included in the budget for packaging, reclamation, recycling of blood pressure cuff units with replacement by new, aneroid units. It is assumed that these

activities may require periodic collection by the mercury reclamation contractor. Funding reimbursement will be evaluated on a case-by-case basis of qualified, actual costs.

No additional effort will be spent with the various Visiting Nurses Associations (VNAs). At this time, the results of MSP2 have shown that this avenue for mercury reclamation has been effectively explored. However, this activity could be reconsidered if new mercury sources are identified.

In targeting dental sources of mercury, SEMASS will work with our contracted consultants as well as the Massachusetts Dental Society (MDS) to conduct outreach efforts to a range of dental associations and businesses (described under Task 2.0) to target reclamation of mercury amalgams. Funding has been incorporated into this Plan for these outreach efforts plus packaging, reclamation, and recycling of elemental and miscellaneous sources of mercury. It is further assumed that these activities may require periodic collection by the mercury reclamation contractor. Funding reimbursement will be evaluated on a case-by-case basis for qualified, actual costs.

Timeline. The timeline for this activity will be ongoing throughout the period of this Plan.

3.2 Thermometer Exchange Programs. This program will continue to be implemented in a manner similar to prior Plan years. Residents, schools and health care facilities will continue to be invited to bring glass fever thermometers to a convenient location and exchange them for new, digital, non-mercury thermometers. Specific thermometer exchange events will be scheduled periodically at municipal or other locations. During MSP2, many points of exchange occurred during community household hazardous waste collection events. SEMASS will continue to support this approach for thermometer exchange events as part of MSP3.

As noted in past IWSA surveys, thermometers remain one of the most recognizable mercury-containing devices to the Public. In addition, SEMASS' experience during MSP2 is that thermometer-exchange events typically promote the identification and reclamation of other sources of mercury and mercury-containing products. We recognize that the number of thermometers reclaimed has declined since the start of the program. While many of our long-term customers have already held exchanges, many others have not and will be provided the opportunity under MSP3. SEMASS will track the number of thermometers exchanged and, if there is a community that shows diminishing returns or excess demand for replacement units, then we will adjust this Plan activity accordingly.

Activity Scope. Funding is included in this Plan's budget for outreach efforts and implementation of thermometer exchange events. Based on past results, it is assumed that each exchange event will generate a mixture of elemental mercury and a variety of mercury-containing products in addition to thermometers. Therefore, SEMASS will

provide communities with a wide range of logistical support to handle these different products (e.g., digital thermometers, buckets, flyers, mercury spill kits).

Timeline. The timeline for this activity will be ongoing throughout the period of this Plan. However, most thermometer exchange activity is expected to concur with community HHW events that occur during the spring-summer-fall periods.

3.3 Community Reimbursement. SEMASS will reimburse communities for the costs associated with the reclamation of mercury bearing devices as well as elemental mercury.

Activity Scope. All SEMASS communities (as defined in Attachment A of this Plan) are eligible to submit claims to SEMASS for reimbursement of those costs incurred in the collection, reclamation, and recycling of mercury and mercury-containing products. Claims for reimbursement will be evaluated and processed by SEMASS on a semi-annual basis. SEMASS will send out certified/return receipt letters to all communities identifying the parameters and means by which they may apply for reimbursement claims. SEMASS will utilize their in-house mailing list (with over 250 contact names and addresses) to ensure that all eligible communities receive notification of reimbursement opportunities. As deemed necessary, the MSP Coordinator will make follow up phone calls to the communities as an additional measure to ensure notification receipt.

Timeline. The timeline for this activity will be ongoing throughout the period of the Plan but primarily conducted on a semi-annual basis.

3.4 Commercial and Residential Thermostat Program. This program will target mercury bearing thermostats by working with those commercial sites (e.g., Granite Electric) that have a desire to remove mercury from the waste stream.

Activity Scope. SEMASS will work with our reclamation contractors (e.g., Onyx and CRS) to make phone calls to various businesses and municipal entities that handle mercury bearing thermostats for the purposes of initiating collection programs at their respective locations. The goal is to develop more commercial locations similar to Granite City Electric where recycling efforts are strongly encouraged. SEMASS will provide logistical support to facilitate reclamation of thermostats (e.g., buckets, packaging, flyers, mercury spill kits, etc). In addition, SEMASS will furnish these locations pre-paid packaging for the direct mailing of thermostats to a licensed collection contractor, if desired.

SEMASS also plans to continue the advertisement for the collection of residential thermostats. The residential program shall also encourage the use of pre-paid packaging for the direct mailing of thermostats to a licensed collection contractor. Also, SEMASS will continue the *Dunkin' Donuts*TM campaign started during MSP2 in which residents are encouraged to bring their mercury-containing thermostat(s) to municipal locations and

exchange them for *Dunkin' Donuts*TM or equivalent, local coffee shop coupons as an incentive to properly recycle these devices.

Timeline. The timeline for this activity will be ongoing throughout the period of the Plan.

3.5 School Clean-Outs. SEMASS will conduct cleanouts for schools or other educational institutions identified as part of Task 2.1 outreach activities that have a significant quantity of mercury and mercury-containing products. Clean-ups would include set-up and coordination of the appropriate event, and collection, packaging, transport, and recycling of these products. Based on past clean-out activities, it is expected that a variety of mercury-containing products will be encountered including fluorescent lights, mercury thermostats, switches, and elemental sources.

In an effort to ensure that all schools that have not had a mercury clean-out provided to them, SEMASS will send a letter to each school district within our Plan geographic area using the list provided by NEWMOA. This letter will describe the Plan clean-out activities and the opportunity for funding of mercury-free replacement units. To the extent possible, the MSP Coordinator will follow-up these letters with telephone calls and/or in-person visits as necessary.

Activity Scope. Funding is included in this Plan budget for implementation of multiple school clean-out events. Should budgeted funds allow, SEMASS will conduct up to ten (10) school cleanouts per year. If the costs of cleanouts are higher than expected, a lesser, but proportional number, will be completed. Funding reimbursement for the removal of mercury, as well as the costs involved for furnishing replacement units (i.e. thermometers, barometers, etc.) is included within this activity. SEMASS is expected to work closely with NEWMOA in conducting clean-out activities, as well as working with a licensed third party reclamation vendor to retrieve mercury from those schools where clean outs are implemented.

Timeline. The timeline for this activity will be ongoing throughout the period of this Plan. However, clean-out activity is usually limited to the duration of the active school year (fall-winter-spring periods).

3.6 Universal Waste Sheds. Currently, approximately 92% of SEMASS' long-term contracted customers have been provided with a Universal Waste Shed under the Plan. Therefore, most communities have already taken advantage of this program activity. However, SEMASS will continue to offer sheds to the remaining communities or to those communities who show a true need for the use of additional sheds to be placed at schools and/or municipal buildings for the proper reclamation of mercury lamps. The placement of sheds in additional, key areas could potentially assist some of the larger communities in the collection and temporary storage of mercury-containing products.

Activity Scope. SEMASS will purchase and place up to twelve (12) Universal Waste Sheds at a funding level of 100% of cost reimbursement. These sheds will be allocated for communities that have yet to receive one or for communities who wish to place additional sheds.

Timeline. This activity will be ongoing throughout the period of this Plan.

3.7 Boatyards, Marinas & Marine Facilities. As a result of requests by one of SEMASS' stakeholders, SEMASS will investigate the feasibility of reclamation of mercury-containing products from boatyards, marinas and other marine repair and/or maintenance facilities. It is our understanding that boat bilge pumps are commonly used on boats of all sizes and that these pumps typically contain mercury-containing electrical switches. Replacement of these pumps occurs on a routine basis as part of normal repairs and maintenance. The demographic layout of many SEMASS communities near the ocean and the degree of boating that occurs within these communities makes this a potentially significant source of new mercury for diversion/reclamation.

Activity Scope. SEMASS will contact additional boatyards, marinas, marine facilities and municipal harbor masters in an effort to establish programs to collect marine bilge pumps. SEMASS will employ similar techniques for outreach and recycling employed for business outreach (Task 2.2) and commercial thermostat reclamation (Task 3.4). These approaches may include some or all of the following:

- Preparation of outreach posters, flyers and literature for marina users,
- Advertisement in local marina newsletters
- Meetings with marina or other marine-facility personnel
- Coordinate and support efforts by the Cape Cod Cooperative Extension's (CCCE) outreach to marina/boatyard facilities on Cape Cod and the Islands
- Conduct outreach to marinas/boatyards along the South Coast and other non-cape coastal areas; SEMASS may coordinate outreach efforts with the commonwealth's Coastal Zone Management agency
- Assist with the cost of printing and distribution of advertising such as flyers, posters, and newspaper advertisements
- Provide containment buckets, packaging, and labels for proper packaging of mercury-containing materials
- Provide collection sites with mercury spill kits
- Reimbursement of the costs of a third-party, mercury collection contractor for pick-up and proper recycling of mercury-containing products
- Scheduling of collection events by themselves or in coordination with municipal HHW events or other collection events
- Emphasis on the use and availability of municipal Universal Waste Sheds

Timeline. The timeline for this activity will be ongoing throughout the period of this Plan. However, clean-out activity is usually limited to the duration of the warm months of the year.

3.8 Appliance/White Good Recycling. This plan activity involves the development and implementation of a pilot program for the removal, reclamation, and recycling of mercury-containing electrical switches from various “white goods”. SEMASS will offer this program to Cape Cod Transfer Stations as well as any other Transfer Station in our Plan geographic area that desires to participate. SEMASS would hire a removal contractor to conduct the removal and packaging of the mercury switches. At present, this contractor is expected to be Interstate Refrigerant Recovery, Inc. (IRRI) of Foxboro, Massachusetts. The reclaimed switches will be placed in buckets that will be properly labeled and then placed in the Town of Yarmouth’s Universal Waste Shed for pick-up and recycling by a licensed reclamation vendor.

Activity Scope. SEMASS will conduct a 12-month trial of this task activity. Reimbursement will be provided for qualified, actual costs, with IRRI direct billing SEMASS for their services. SEMASS will also identify other communities that may be willing to participate in this pilot program as well.

Timeline. This activity is anticipated to be conducted during the first Plan year. Further effort will be dependent on the results of the trial activity.

Task 4.0 - Program Administration

General administrative activities required to operate the MSP3 program activities will be conducted as part of Task 5.0. Activities include: tracking of program costs, review of reclamation records and preparation of estimates for mercury reclaimed, processing of funding requests, sub-contractor management, processing billing for accounts receivable and accounts payable, and periodic internal program meetings, management oversight and reporting. Salaries for the MSP Coordinator and labor hours expended for Ref-Fuel technical and management oversight are included in this task.

III. PROGRAM REPORTING AND SCHEDULE

SEMASS will prepare and submit annual reports summarizing the results of the Material Separation Plan. These annual reports will be based on the calendar year (January through December).

Activities related to MSP3 will begin on July 1, 2004 and continue through December 31, 2006.

IV. PERSONNEL

Implementation of the Material Separation Plan requires the efforts of a variety of professional and contractor personnel. Key Parties include the following:

SEMASS

- MSP Coordinator. SEMASS will continue to provide a Material Separation Plan Coordinator to oversee and administer the activities described within this Plan. SEMASS will also provide support to the MSP Coordinator in the form of office space, administrative support, and administrative logistics (e.g., telephone, copiers, printers, computer, IS Support, fax machine, etc.) necessary to execute this Plan.
- Technical & Management Program Oversight. Technical and management program oversight will be provided on a periodic basis by Ref-Fuel personnel to monitor and guide successful implementation of the MSP3 program. This oversight support may include personnel with managerial, technical, environmental, legal, and financial backgrounds.

Contractor Support

SEMASS will employ outside consultants/contractors in the implementation and other facets of the activities associated with MSP3, as indicated in the Plan. A listing of contractors is provided below. SEMASS reserves the right to change contractors, as required, should their performance not meet expected standards in successfully implementing MSP3.

- Supplemental Mercury Source Identification. Pozitive Environmental Solutions, Inc (PESI) of Stoughton, MA will continue to provide additional, auxiliary capabilities to identify and locate potential sources of mercury within the Plan geographic area. PESI's focus will be to target businesses that may be unaware of municipal efforts with regards to the MSP Program.
- Mercury Handling, Pick-Up, Packaging & Disposal. SEMASS will utilize two (2) contractors to conduct the field activities associated with pick-up, packaging,

transport and reclamation/recycling of mercury and mercury-containing products. These include: Onyx Special Services, Inc. of Stoughton, MA and Complete Recycling Solutions (CRS) of Fall River, MA.

In addition, these contractors will also assist SEMASS in the recovery of mercury bearing devices by either the “Pak” program (as described in Task 2.2) or the mail-in collection of thermostats (as described in Task 3.4).

- Mercury Handling and Awareness Training. In instances where supplemental training is required by the MSP Program Coordinator, HAZMATEAM, Inc. of Hudson, NH, will be utilized. This firm specializes in conducting training for proper hazard recognition, handling, packaging and transport of mercury and mercury-containing products.
- School Clean-Out Contractor. SEMASS will continue to work with staff from the Northeast Waste Management Officials’ Association (NEWMOA) of Boston, MA for assistance with conducting school cleanout activities.

V. PROJECTED PLAN EXPENDITURES

Projected expenditures for the 2.5 year period of this Plan are detailed in Table 2 below.

TABLE 2. PROJECTED MSP3 EXPENDITURES BY TASK

Task No.	Plan Activity:	Projected Plan Expenditures: ⁽¹⁾
1.0	ISWA Education and Outreach	\$125,000
1.1	Advertising	\$ 101,250
1.2	Public Service Advertisement Marketing /Media Outreach	\$ 3,750
1.3	Web-Based Tools	\$ 1,250
1.4	Print Materials	\$ 2,500
1.5	Video	\$ 1,250
1.6	Evaluation Tool	\$ 15,000
2.0	Local Education and Outreach	\$175,000
2.1	Community and School Outreach	\$ 87,500
2.2	Business Outreach	\$ 50,000
2.3	Mercury Handling and Awareness Training	\$ 37,500
3.0	Mercury Reduction / Recycling Programs	\$387,500
3.1	Medical & Dental Facilities	\$ 31,250
3.2	Thermometer Exchange Programs	\$ 71,250
3.3	Community Reimbursement & HHW Support	\$ 87,500
3.4	Commercial and Residential Thermostat Program	\$ 65,000
3.5	School Clean-Outs	\$ 53,750
3.6	Universal Waste Sheds	\$ 28,750
3.7	Boatyards, Marinas & Marine Facilities	\$ 31,250
3.8	Appliance / White Good Recycling	\$ 18,750
4.0	Program Administration	\$187,500
	Contingency	\$62,500
Grand Total:		\$937,500

Notes:

(1) Expenditures cover the 2.5 year period of MSP3.

ATTACHMENT A

LIST OF LONG-TERM SEMASS COMMUNITIES

List of Long-Term SEMASS Communities
(as of 1/21/04)

No.	Community
1	Abington
2	Acushnet
3	Attleboro
4	Avon
5	Barnstable
6	Bellingham
7	Berkley
8	Blackstone
9	Bourne
10	Braintree
11	Brewster
12	Canton
13	Carver
14	Chatham
15	Cohasset
16	Dennis
17	Dighton
18	Duxbury
19	Eastham
20	Fairhaven
21	Falmouth
22	Freetown
23	Halifax
24	Hanover
25	Hanson
26	Harwich
27	Hingham
28	Holbrook
29	Kingston
30	Lakeville
31	Marion
32	Martha's Vineyard
33	Mashpee
34	Mattapoisett
35	Middleborough
36	Milton
37	Norfolk
38	Norwell
39	Orleans
40	Otis Air National Guard Base

List of Long-Term SEMASS Communities
(as of 1/21/04)

No.	Community
41	Pembroke
42	Plymouth
43	Plympton
44	Provincetown
45	Quincy
46	Randolph
47	Rochester
48	Rockland
49	Sandwich
50	Scituate
51	Sharon
52	Stoughton
53	Sudbury
54	Truro
55	Waltham
56	Wareham
57	Wellfleet
58	West Bridgewater
59	Weymouth
60	Whitman
61	Wrentham
62	Yarmouth